

**Table 1**  
**Design Features<sup>①</sup> of Existing and Proposed Highway Facilities**  
**Somerset Northern Bypass**

DESIGN FEATURE	EXISTING FACILITES			PROPOSED PROJECT
	Cumberland Pkwy	KY 80		
Classification	Rural Principal Arterial	Urban Principal Arterial	Rural Principal Arterial	Interstate - Rural
Truck Weight Status	Triple AAA (80,000 lbs. gross)	Triple AAA (80,000 lbs. gross)	Triple AAA (80,000 lbs. gross)	Triple AAA (80,000 lbs. gross)
Design Speed	70 mph	50 mph	60 mph	70 mph
Access	Full Access Control	Partial Access Control	Partial Access Control	Full Access Control
Number of Lanes	4 @ 12 ft.	4 @ 12 ft.	4 @ 12 ft.	4 @ 12 ft.
Shoulders	10 ft.	10 ft.	10 ft.	12 ft.
Median	36 ft.	18-24 ft.	60 ft.	60 ft.
Right of Way	300-760 ft.	200-300 ft.	200-510 ft.	300-700 ft.
Minimum Radius	5730 ft.	1910 ft.	2865 ft.	4000 ft.
Maximum Grade	3.84%	5.00%	4.00%	3.94%

① Design feature information taken from KYTC planning documents and existing roadway plans.

**Table 2**  
**Level of Service Scale**  
**Somerset Northern Bypass**

LOS	DESCRIPTION
A	Free-flow operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream.
B	Reasonably unimpeded operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome.
C	Stable operations causing some tension for motorists. The ability to maneuver and change lanes in midblock locations is restricted along with noticeable queues at intersections.
D	Small increases in flow cause substantial increases in delay and decreased in arterial speed. The ability to maneuver is severely restricted.
E	Significant delays and average travel speeds of less than one-third the free-flow speed are experienced.
F	Intersection congestion, long delays and extensive queuing along the arterial cause extremely low free-flow speeds and stand-still conditions for motorists. The demand exceeds the capacity of the roadway.

**Table 3**  
**Cost Comparison of Build Alternates**  
**Somerset Northern Bypass**

CONSIDERATION	NORTH ALTERNATE	CROSSOVER ALTERNATE	SOUTH ALTERNATE
<b>PROJECT LENGTH (miles)</b>	10.5	7.8	7.6
<b>RIGHT OF WAY</b>			
Right of Way (acres)	692	635	650
Parcels Affected	219	273	216
<b>ESTIMATED COSTS</b>			
Design	\$8,300,000	\$8,300,000	\$8,300,000
Right of Way	\$19,300,000	\$24,500,000	\$22,000,000
Utilities	\$4,000,000	\$3,400,000	\$3,200,000
Construction	\$132,000,000	\$113,900,000	\$109,700,000
<b>TOTAL COST</b>	\$163,600,000	\$150,100,000	\$143,200,000
<b>COST PER MILE</b>	\$15,600,000	\$19,200,000	\$18,800,000

*Based on preliminary construction plans and cost estimates, JDQ Engineers, Inc. 2003.*

**TABLE 4**  
**SUMMARY OF IMPACTS**  
**Somerset Northern Bypass**

<b>TABLE 4</b> <b>SUMMARY OF IMPACTS</b> <b>Somerset Northern Bypass</b>		KEY		
		No Effect = N	No Adverse Effect = NA	Quantifiable Effect = Number
		Nonquantifiable Effect :	Positive	Negative
		Slight	+	-
		Moderate	++	--
		Strong	+++	---
IMPACTS	Build Alternates			No Build *
	North	Crossover	South	
<b>LAND USE</b>				
Right-of-Way Requirements, Acres	692	635	650	0
Number of Parcels	219	273	216	0
Projected Population Growth	++	+	N	-
Agreement with Local/Regional Plans	+++	++	+	---
<b>AGRICULTURAL</b>				
Prime/Important Farmland, Acres	81	85	79	0
Severances	--	-	-	N
<b>SOCIAL</b>				
<b>Community Cohesion</b>				
Somerset	-	--	--	N
Suburban/Rural Communities	N	N	N	N
<b>Accessibility</b>				
Local Facilities/Services	+	+	+	N
Bus Access to Schools	N	N	N	N
Outlying Highway/Travel/Access	+++	++	+	N
<b>Relocations</b>				
Residences	66	109	64	0
Mobile Homes	10	9	8	0
Outbuildings, Garages, Barns	111	134	75	0
Commercial	8	6	5	0
<b>Environmental Justice</b>	N	N	N	N
<b>ECONOMIC</b>				
Employment/Income/Business Activity				
Short-Term	-	-	-	N
Long-Term	+++	++	+	N
Existing Industry Access	+	++	++	N
Future Industry Access	+	++	++	N
Local Tax Revenues	N	N	N	N
<b>AIR QUALITY</b>	N	N	N	N
<b>NOISE</b>				
Impacted Receptors	321	292	282	
Impacted Receptors Eligible for Mitigation	90	44	44	
<b>ECOLOGICAL</b>				
Threatened or Endangered Species	N	N	N	N
Terrestrial Habitats	-	-	-	N
Wetlands, Hectares (Acres)	0.23	3.62	4.93	0
Stream Crossings	10	7	7	0
Channel Changes (Feet)	1380	720	0	0
Ponds	11	7	7	0
Groundwater (Wells)	1	1	1	0
Water Quality	-	-	-	N
Caves	0	0	2	0
Sinkholes	4	0	1	0
Springs/Seeps	2	4	4	0
Floodplains	-	-	-	N
Wild and Scenic Rivers	N	N	N	N
State and National Trees	N	N	N	N
<b>CULTURAL RESOURCES</b>				
Historical	N	N	N	N
Archaeological**	N/A	N/A	N/A	N
<b>VISUAL</b>	-	-	-	N
<b>BICYCLES/PEDESTRIANS</b>	N	N	N	N
<b>WASTE SITE</b> (Full & Limited Phase II Assessments Required)	5	8	5	0
<b>ENERGY</b>	N	N	N	N
<b>CONSTRUCTION</b>				
Short-Term	--	--	--	N
Long-Term	N	N	N	N
<b>TRAFFIC SAFETY</b>	++	++	++	---

\*Negative effects indicated for No Build are for assumed worsening of impacts in the future (not for lack of present benefits).

**\*\*Anticipated**

**Table 5**  
**Identification of Noise Receptors - Somerset Northern Bypass**

Site No.	Land Use Category	Description *	Representative Receptors	Total Receptors
1	B	Residential – 2540 feet (774 meters) south of the North Alternate; 2372 feet (723 meters) south of the Crossover Alternate; 732 feet (223 meters) south of the South Alternate. Receptor 1 is located approximately 1565 feet (477 meters) north of KY 80 at Hacker Road.	31 res., 1 com.	33
2	B	Residential – 936 feet (285 meters) southeast of the North Alternate; 645 feet (196 meters) southeast of the Crossover Alternate; 1347 feet (410 meters) north of the South Alternate. Receptor 2 is located at Tomahawk and Ringgold Roads.	33 res., 4 com.	38
3	B	Residential – 916 feet (279 meters) north of the North Alternate; 380 feet (115 meters) north of the Crossover Alternate; 3670 feet (1118 meters) north of the South Alternate. Receptor 3 is located at Norway and Clifty Roads.	31 res.	32
4	B	Residential – 352 feet (107 meters) south of the North Alternate; 891 feet (272 meters) south of the Crossover Alternate; 2497 feet (761 meters) north of the South Alternate. Receptor 4 is Pleasant Hill Baptist Church located on Clifty Road.	17 res., 1 church	19
5	B	Residential – 930 feet (283 meters) south of the North Alternate; 1466 feet (447 meters) south of the Crossover Alternate; 1852 feet (564 meters) north of the South Alternate. Receptor 5 is located 3034 feet (925 meters) west of US 27 at Clifty Road.	20 res.	21
6	B	Residential – 2560 feet (780 meters) south of the North Alternate; 1429 feet (436 meters) south of the Crossover Alternate; 677 feet (206 meters) north of the South Alternate. Receptor 6 is located at the intersection of KY 1274 and Racetrack Road.	41 res., 4 com., 1 church	47
7	B	Residential – 197 feet (60 meters) south of the North Alternate; 3126 feet (953 meters) north of the Crossover Alternate; 4499 feet (1371 meters) north of the South Alternate. Receptor 7 is located 6320 feet (1926 meters) east of US 27 at Campground Road.	6 res., 1 com.	8
8	B	Residential – 4760 feet (1451 meters) south of the North Alternate; 1716 feet (523 meters) north of the Crossover Alternate; 1776 feet (541 meters) north of the South Alternate. Receptor 8 is located at the entrance to Bent Creek Subdivision on KY 39.	32 res., 1 church	34
9	B	Residential – 165 feet (50 meters) south of the North Alternate; 7768 feet (2368 meters) north of the Crossover and South Alternates. Receptor 9 is located at Sweeney's Chapel along Stilesville Road.	35 res., 1 church	37
10	B	Residential – 7817 feet (2383 meters) south of the North Alternate; 386 feet (118 meters) south of the Crossover and South Alternates. Receptor 10 is located 3014 feet (919 meters) east of KY 39.	42 res., 1 com.	44
11	B	Residential – 12789 feet (3898 meters) south of the North Alternate; 1315 feet (401 meters) southeast of the Crossover and South Alternates. Receptor 11 is located 494 feet (151 meters) west of KY 39.	35 res., 1 com.	37
12	B	Residential – 4400 feet (1341 meters) southwest of the North Alternate; 9150 feet (2789 meters) northeast of the Crossover and South Alternates. Receptor 12 is located at Barnesburg Baptist Church on Barnesburg Road.	16 res.	17
13	B	Residential – 729 feet (222 meters) north of the North Alternate; 14385 feet (4385 meters) northeast of the Crossover and South Alternates. Receptor 13 is located 3296 feet (1005 meters) north of KY 80 along KY 1317.	7 res.	8
14	C	Commercial – 33 feet (10 meters) south of the North Alternate centerline; 443 feet (132 meters) north of the Crossover Alternate; 2807 feet (856 meters) north of the South Alternate. Receptor 14 is located at the intersection of E. Racetrack Road and U.S. 27.	9 com.	10
15	B	Residential – 8937 feet (2724 meters) south of the North Alternate; 2454 feet (748 meters) south of the Crossover Alternate; 234 feet (71 meters) south of the South Alternate. Receptor 15 is located 1463 feet (446 meters) east of U.S. 27 in the Camelot subdivision.	60 res.	61
16	B	Residential and commercial – 510 feet (155 meters) south of the North Alternate; 550 feet (168 meters) north of the Crossover Alternate; 2747 feet (837 meters) north of the South Alternate; 1502 feet (458 meters) east of existing U.S. 27 at the intersection of Bryant Street and Bodie Road.	26 res. 2 com.	29

\* All distances are to centerline.

Information taken from THE Engineers Inc. *Highway Traffic Noise Impact Analysis Baseline Study*. [See Section 6, Reference 7]

**Table 6**  
**Existing and Future Noise Levels (dBA Leq)**  
**Somerset Northern Bypass**

Receptor	Land Use Category	Description	Existing	No-Build	North Alternate	Crossover Alternate	South Alternate
1	B	Residential	56	59	63	63	70
2	B	Residential	61	64	70	72	69
3	B	Residential	65	67	66	69	67
4	B	Residential	55	57	67	65	61
5	B	Residential	53	55	63	62	60
6	B	Residential	62	66	67	65	69
7	B	Residential	49	51	74	61	58
8	B	Residential	57	60	58	66	65
9	B	Residential	51	53	76	52	51
10	B	Residential	46	45	52	70	70
11	B	Residential	54	56	62	62	62
12	B	Residential	65	67	67	67	67
13	B	Residential	49	51	63	51	51
14	C	Commercial	79	81	89	82	82
15	B	Residential	41	46	61	64	76
16	B	Residential	56	55	71	71	63

Information taken from THE Engineers Inc. *Highway Traffic Noise Impact Analysis Baseline Study*.  
[See Section 6, Reference 7]

**Table 7**  
**Predicted Change in Leq from Existing Levels**  
**Somerset Northern Bypass**

Receptor	Land Use Category	Description	No-Build	North Alternate	Crossover Alternate	South Alternate
1	B	Residential	3	7	7	14
2	B	Residential	3	9	11	8
3	B	Residential	2	1	4	2
4	B	Residential	2	12	10	6
5	B	Residential	2	10	9	7
6	B	Residential	4	5	3	7
7	B	Residential	2	25	12	9
8	B	Residential	3	1	9	8
9	B	Residential	2	25	1	0
10	B	Residential	0	6	24	24
11	B	Residential	2	8	8	8
12	B	Residential	2	2	2	2
13	B	Residential	2	14	2	2
14	C	Commercial	2	10	3	3
15	B	Residential	5	20	23	35
16	B	Residential	0	15	15	7

Information taken from THE Engineers Inc. *Highway Traffic Noise Impact Analysis Baseline Study*.  
[See Section 6, Reference 7]

**Table 8**  
**Predicted Change in Leq from No-Build Levels**  
**Somerset Northern Bypass**

Receptor	Land Use Category	Description	North Alternate	Crossover Alternate	South Alternate
1	B	Residential	4	4	11
2	B	Residential	6	8	5
3	B	Residential	0	2	0
4	B	Residential	10	8	4
5	B	Residential	8	7	5
6	B	Residential	1	0	3
7	B	Residential	23	10	7
8	B	Residential	0	6	5
9	B	Residential	23	0	0
10	B	Residential	7	25	25
11	B	Residential	6	6	6
12	B	Residential	0	0	0
13	B	Residential	12	0	0
14	C	Commercial	8	1	1
15	B	Residential	15	18	30
16	B	Residential	16	16	8

Information taken from THE Engineers Inc. *Highway Traffic Noise Impact Analysis Baseline Study*.  
[See Section 6, Reference 7]



**Table 9**  
**Water Quality Sampling Results for Project Area Streams**  
**Somerset Northern Bypass**

Parameters	Stream Names/Location																
	Site 1	Site 2	Site 3	Site 4a 4b		Site 5	Site 6	Site 7a 7b		Site 8	Site 9	Site 10	Site 11	Site 12	Site 13	Site 14	Site 15
Turbidity (FTU-Formazin Turbidity Units)	18	14	20	5	3	5	4	6	31	8	2	0	6	4	7	4	4
pH	8.5	8.1	8.0	8.1	8.0	8.1	8.2	7.8	8.1	7.4	7.7	7.6	8.5	8.8	7.5	8.0	7.9
Nitrate-Nitrogen (mg/L NO <sub>3</sub> <sup>-</sup> -N)	0.2	0.6	0.6	0.4	1.3	1.2	2.7	1.9	1.6	1.6	0.3	1.5	1.1	1.2	2.3	0.8	1.1
Acidity (mg/L as CaCO <sub>3</sub> phenolphthalein acidity)	33	43	50	40	20	39	37	40	19	34	31	38	36	18	32	12	11
Chloride (mg/L)	83	15	14	11	11	8	11	8	5	85	2	5	2	83	5	12	4
Ammonia-Nitrogen (mg/L NH <sub>3</sub> -N)	0.36	0.18	0.21	0.11	0.07	0.09	0.10	0.08	0.29	0.81	0.0	0.06	0.08	0.08	0.95	0.10	0.08
Sulfate (mg/L)	4	29	12	15	13	1	8	1	0	1	1	2	17	17	8	12	71
Hardness (mg/L as CaCO <sub>3</sub> )	101	171	183	132	116	225	207	185	101	65	110	96	112	155	126	112	155
Specific Conductance (µS)	230	430	360	290	210	390	380	350	200	140	220	200	210	250	300	230	350
Total Dissolved Solids (mg/L)	234	482	418	319	248	420	425	390	231	150	248	227	240	284	336	258	378
Orthophosphate (mg/L PO <sub>4</sub> <sup>3-</sup> )	0.01	1.02	0.01	0.10	0.09	0.01	0.07	0.01	0.03	0.03	0.08	0.02	0.07	0.03	0.05	0.04	0.11
Dissolved Oxygen (mg/L)	14.3	8.0	9.5	12.2	11.5	8.8	8.1	12.5	7.4	8.7	10.0	9.7	12.9	9.6	4.3	7.9	8.7

Site 1: Sinking Stream off of Ringgold Road (8/20/01)  
Site 2: Caney Fork off of U.S. 27 (8/20/01)  
Site 3: Dry Branch off of Leaf Lane (8/20/01)  
Site 4a: Pitman Creek off of KY 39 (8/20/01)  
Site 4b: Pitman Creek off of KY 39 (5/16/02)  
Site 5: Soul Chapel Branch off of Soul Chapel Road (8/28/01)  
Site 6: Big Spring Branch off of Barnesburg Road (8/28/01)  
Site 7a: Tributary of Big Spring Branch off of KY 1317 (8/28/01)  
Site 7b: Tributary of Big Spring Branch off of KY 1317 (5/16/02)  
Site 8: Tributary of Hall Branch off of KY 1674 (4/4/02)  
Site 9: Tributary of Pitman Creek off of Stilesville Road (4/4/02)  
Site 10: Tributary of Caney Fork off of Racetrack Road (4/4/02)  
Site 11: Smith Branch off of Nelson Valley Road (4/4/02)  
Site 12: Tributary of Fishing Creek off of Hart Road (4/17/02)  
Site 13: Sinking Stream off of KY 1674 (4/17/02)  
Site 14: Tributary of Pitman Creek off of Nelson Valley Road (5/24/02)  
Site 15: Tributary of Fishing Creek off of Cumberland Parkway (5/24/02)

Information taken from THE Engineers Inc. *Aquatic and Terrestrial Ecological Baseline Study*. [See Section 6, Reference 8]

**Table 10**  
**Structures and Channel Changes in Blue-Line Streams**  
**Somerset Northern Bypass**

STRUCTURE NUMBER	STREAM NAME	STRUCTURE TYPE, SIZE, & LENGTH	LENGTH OF CHANNEL CHANGE
<b>NORTH ALTERNATE</b>			
N1	Tributary of Fishing Creek	6'x6' x 662' Box Culvert	840 ft.
N2	Tributary of Fishing Creek	72" x 446' Pipe Culvert	
N3	Tributary of Fishing Creek	42" x 330' Pipe Culvert	---
N4	Caney Fork	48" x 600' Pipe Culvert	---
N5	Tributary of Pitman Creek	42" x 490' Double Pipe Culvert	240 ft.
N6	Pitman Creek	Bridge	---
N7	Tributary of Big Spring Branch	Bridge	300 ft.
N8	Big Spring Branch	10'x5' x 295' Double Box Culvert	---
N9	Big Spring Branch	10'x5' x 375' Double Box Culvert	---
N10	Big Spring Branch	10'x5' x 160' Double Box Culvert	---
<b>CROSSOVER ALTERNATE</b>			
C1	Tributary of Fishing Creek	6'x6' x 662' Box Culvert	---
C2	Tributary of Fishing Creek	72" x 446' Pipe Culvert	---
C3	Tributary of Fishing Creek	42" x 330' Pipe Culvert	---
C4	Tributary of Hall Branch	36" x 635' Pipe Culvert	---
C5	Caney Fork	54" x 490' Pipe Culvert	---
C6	Dry Branch Creek	4'x6' x 580' Box Culvert	720 ft.
C7	Pitman Creek	Bridge	---
<b>SOUTH ALTERNATE</b>			
S1	Tributary of Fishing Creek	72" x 160' Pipe Culvert	---
S2	Tributary of Fishing Creek	6'x6' x 250' Box Culvert	---
S3	Tributary of Fishing Creek	54" Pipe Culvert	---
S4	Unnamed Sinking Stream off of Ringgold Road	8'x6' x 250' Box Culvert	---
S5	Caney Fork	12'x6' x 525' Box Culvert	---
S6	Dry Branch Creek	10'x6' x 420' Box Culvert	---
S7	Pitman Creek	Bridge	---

*Based on preliminary construction plans JDQ Engineers, Inc. 2002.*

**Table 11**  
**Wetland Characteristics**  
**Somerset Northern Bypass**

Wetland, Size, and Jurisdictional Status	Area Taken By Alternate	Dominant Plants	% vegetation FAC, FACW, and/or OBL	Soil Series	Soil Characteristics	Hydrology	NWI Status	Description
A 0.2 acres Jurisdictional	South Alternate 0.2 acres (entire wetland)	<i>Sparganium americanum</i> <i>Juncus effusus</i> <i>Ludwigia palustris</i>	100%	Newark silt loam	10YR 4/2 Mottling, gleying	Inundated	*Palustine unconsolidated bottom	Wetland edge, provides good habitat for reptiles and amphibians.
D 0.2 acres Jurisdictional	North Alternate 0.1 acres	<i>Leersia oryzoides</i> <i>Impatiens capensis</i> <i>Ludwigia palustris</i>	100%	Newark silt loam	10YR 4/2 Mottling	Inundated	PUBHh – Palustrine unconsolidated bottom	Shallow pond with emergent edge providing good habitat for reptiles and amphibians.
F 0.4 acres Jurisdictional	No area taken	<i>Fraxinus pennsylvanica</i> <i>Lindera benzoin</i> <i>Platanus occidentalis</i> <i>Lonicera japonica</i> <i>Verbesina alternifolia</i>	80%	Newark gravelly silt loam	10YR 4/2 Mottling, gleying, undecayed organic matter	Saturated during flood events, soil in area has seasonally high water table	PFO1A – Palustrine forested	Forested wetland along Dry Branch providing good habitat for reptiles and amphibians.
K 0.8 acres Jurisdictional	South Alternate 0.6 acres	<i>Leersia oryzoides</i> <i>Scirpus validus</i> <i>Lemna minor</i> <i>Carex vulpinoidea</i>	88%	Frederick silt loam	10 YR 3/2 mottling, gleying, oxidized rhizospheres	Inundated	PUBHh – Palustrine unconsolidated bottom	Spring-fed pond providing good habitat for reptiles and amphibians. Drains to Dry Br.
S 0.2 acres Jurisdictional	No area taken	<i>Juncus effusus</i> <i>Eupatorium perfoliatum</i> <i>Ludwigia alternifolia</i> <i>Cephalanthus occidentalis</i>	100%	Newark silt loam	10YR 4/1 Mottling, gleying, Oxidized rhizospheres	Saturated at 2 inches below the soil surface	PEM1A – Palustrine emergent wetland	Emergent wetland providing fair to poor habitat for reptiles and amphibians. Drains to Pitman Creek

**Table 11**  
**Wetland Characteristics**  
**Somerset Northern Bypass**

<b>Wetland, Size, and Jurisdictional Status</b>	<b>Area Taken By Alternate</b>	<b>Dominant Plants</b>	<b>% vegetation FAC, FACW, and/or OBL</b>	<b>Soil Series</b>	<b>Soil Characteristics</b>	<b>Hydrology</b>	<b>NWI Status</b>	<b>Description</b>
T 10.9 acres Jurisdictional	Crossover Alt. 3.6 acres South Alternate 3.4 acres	<i>Aeculus flava</i> <i>Platanus occidentalis</i> <i>Lindera benzoin</i> <i>Convolvulus sepium</i>	56%	Newark silt loam	10YR 4/2 Mottling	Saturated near soil surface	PFOIA – Palustrine Forested	Forested wetland along Pitman Creek floodplain. Good wildlife habitat.
X 0.3 acres Jurisdictional	No area taken	<i>Platanus occidentalis</i> <i>Polygonum punctatum</i> <i>Cyperus erythrorhizos</i> <i>Cyperus strigosus</i> <i>Mentha piperita</i>	100%	Newark silt loam	10YR 4/2 Mottling, gleying	Saturated at 2 inches	*Palustrine forested with emergent area	Good quality emergent/forested wetland with good wildlife habitat.
CC 0.3 acres Jurisdictional	South Alternate 0.3 acres	<i>Typha latifolia</i> <i>Scirpus atrovirens</i> <i>Potamogeton sp.</i> <i>Carex lurida</i>	100%	Bedford silt loam	5Y 4/2 Gleying, oxidized rhizospheres, undecayed OM	Inundated	PUBHh – Palustrine unconsolidated bottom	Fish pond with wetland perimeter fed by a small spring providing good habitat for reptiles and amphibians.
DD 0.3 acres Jurisdictional	South Alternate 0.1 acres	<i>Salix nigra</i> <i>Polygonum cespitosum</i> <i>Scirpus atrovirens</i> <i>Cyperus strigosus</i>	75%	Bedford silt loam	10 YR 4/1 Mottling, gleying, undecayed organic matter	Saturated near soil surface	*Palustrine emergent	Emergent vegetation wetland along a small drain providing some habitat for reptiles and amphibians.
HH 1.9 acres Jurisdictional	No area taken	<i>Aesculus flava</i> <i>Platanus occidentalis</i> <i>Sambucus canadensis</i> <i>Glyceria striata</i>	67%	Nolin silt loam	10YR 4/2 Mottling	Saturation near soil surface	PFOIA – Palustrine Forested	Forested and emergent wetland along Pitman Creek floodplain with good wildlife habitat.

**Table 11**  
**Wetland Characteristics**  
**Somerset Northern Bypass**

<b>Wetland, Size, and Jurisdictional Status</b>	<b>Area Taken By Alternate</b>	<b><i>Dominant Plants</i></b>	<b>% vegetation FAC, FACW, and/or OBL</b>	<b>Soil Series</b>	<b>Soil Characteristics</b>	<b>Hydrology</b>	<b>NWI Status</b>	<b>Description</b>
II 0.8 acres Jurisdictional	South Alternate 0.2 acres	<i>Typha latifolia</i> <i>Lemna minor</i> <i>Salix nigra</i> <i>Impatiens capensis</i>	100%	Chagrin gravelly silt loam	10YR 4/2 at pond edge, 10YR 4/1 in channel gleying	Inundated and saturated	PUBHh – Palustrine unconsolidated bottom and Palustrine emergent outflow channel	Pond with emergent and scrub-shrub perimeter and emergent outflow channel. Excellent habitat for reptiles , amphibians, and avian species.
LL 0.03 acres Jurisdictional	Crossover Alt. 0.02 acres	<i>Typha latifolia</i> <i>Scirpus validus</i> <i>Scirpus pendulus</i>	100%	Waynesbo ro clay loam	10YR 5/1 undecayed organic matter	Inundated	*Palustrine unconsolidated bottom wetland with emergent edge	Spring-fed pond with emergent edge. Drains to Pitman Creek. Low quality wetland.
MM 0.1 acres Jurisdictional	North Alternate 0.1 acres (entire wetland)	<i>Platanus occidentalis</i> <i>Cornus florida</i> <i>Pilea pumila</i> <i>Agrimonia parviflora</i>	55%	Frederick silty clay loam	10YR 5/2 Mottling, gleying	Inundated	*Palustrine unconsolidated bottom wetland with emergent and forested edge	Drains to tributary of Big Spring Branch. Land around pond being cleared. Good habitat for amphibians and reptiles.
NN 1.9 acres Jurisdictional	No area taken	<i>Salix nigra</i> <i>Scirpus atrovirens</i> <i>Mentha spicata</i> <i>Carex frankii</i>	100%	Trimble cherty silt loam, Newark gravelly silt loam	10YR 4/2 mottling, gleying, oxidized rhizospheres	Inundated and saturated near soil surface	*Palustrine unconsolidated bottom wetland and emergent wetland	Grown-up wet field along channel. Good wildlife habitat
OO 1.7 acres Jurisdictional	South Alternate 0.03 acres	<i>Sparganium americanum</i> <i>Scirpus validus</i> <i>Carex vulpinoidea</i> <i>Carex lurida</i>	100%	Chagrin gravelly silt loam, Frederick silt loam	10YR 4/2 mottling, gleying, oxidized rhizospheres	Saturated at soil surface	*Palustrine emergent wetland	Field of emergent vegetation along channel draining to Dry Branch providing good wildlife habitat

**Table 11**  
**Wetland Characteristics**  
**Somerset Northern Bypass**

<b>Wetland, Size, and Jurisdictional Status</b>	<b>Area Taken By Alternate</b>	<b><i>Dominant Plants</i></b>	<b>% vegetation FAC, FACW, and/or OBL</b>	<b>Soil Series</b>	<b>Soil Characteristics</b>	<b>Hydrology</b>	<b>NWI Status</b>	<b>Description</b>
PP 0.2 acres Jurisdictional	South Alternate 0.1 acres	<i>Platanus occidentalis</i> <i>Acer rubrum</i> <i>Sparganium americanum</i> <i>Eupatorium perfoliatum</i>	100%	Trimble cherty silt loam	10YR 4/2 gleying, oxidized rhizospheres	Saturated in upper 12 inches of soil	*Palustrine emergent wetland	Field of emergent vegetation with channel outflow to Dry Branch. Fair wildlife habitat.
QQ 0.4 acres Jurisdictional	North Alternate 0.03 acres	<i>Sparganium americanum</i> <i>Ranunculus abortivus</i> <i>Eupatorium perfoliatum</i> <i>Carex annectens</i>	100%	Melvin silt loam (on hydric soils list)	2.5Y 4/2 mottling	Inundated	PEMIA – Palustrine emergent wetland	Low quality wetland with emergent vegetation in between 2 ponds. Cattle in pond.

Information taken from THE Engineers Inc. *Aquatic and Terrestrial Ecological Baseline Study*. [See Section 6, Reference 8]

**Table 12**  
**Ecosystem Impacts**  
**Somerset Northern Bypass**

HABITAT TYPE	NORTH ALTERNATE	CROSSOVER ALTERNATE	SOUTH ALTERNATE
Open Area	359 acres	257 acres	275 acres
Residential/ Commercial Area	101 acres	105 acres	112 acres
Forested Area	79 acres	65 acres	62 acres
Wetland Area	0.23 acres	3.62 acres	4.93 acres

Information taken from THE Engineers Inc. *Aquatic and Terrestrial Ecological Baseline Study*. [See Section 6, Reference 8]

**Table 13**  
**Cultural Resource Site Types and Frequencies<sup>1</sup>**  
**Somerset Northern Bypass**

Site Type <sup>2</sup>	Total Sites	Total Sites w/no Additional Work	Somerset Bypass Field Site Nos. With No Additional Archaeological Investigations Recommended	Total Sites with Potential Phase II	Somerset Bypass Field Site Nos. w/ Potential for Additional Phase II Archaeology
Prehistoric Open Air Habitation	35	31	1,5, 11, 12, 13,15, 16, 17, 18, 20, 21, 22, 23, 28, 29, 31, 32/33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49	4	9, 14, 30, 46
Prehistoric Open Air Habitation/Historic House-Farmstead	6	6	2, 3, 6, 25, 26, 44	--	
Historic House-Farmstead/Prehistoric Open Air Habitation	4	2	7, 8	2	4, 10
Historic House-Farmstead	3	3	19, 24, 27	--	
Historic Cemetery	1	--		1	Sweeney Cemetery
<b>Grand Totals</b>	<b>49</b>	<b>42</b>		<b>7</b>	

<sup>1</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Lead site type entry denotes major cultural component at site. Subsequent site entry is minor cultural component.

Information taken from AMEC Earth & Environmental, Inc. *Intensive Phase I Archaeological Investigation for the Proposed I-66/Somerset Bypass*. [See Section 6, Reference 14]



**Table 14**  
**Management Recommendations and Preliminary NRHP Evaluations for Archaeological Sites<sup>1</sup>**  
**Somerset Northern Bypass**

AMEC Field Site No.	Site Type	Additional Archaeology Recommended <sup>2</sup>	Management Recommendations and Preliminary NRHP Evaluations	Archival Research Required
Field Site 1	Prehistoric Open Air Habitation	No	Site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 2	Prehistoric Open Air Habitation/ Historic House-Farmstead	No	Site consists of a low density prehistoric lithic scatter and light historic components. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 3	Prehistoric Open Air Habitation/ Historic House-Farmstead	No	Site consists of a low density prehistoric lithic scatter and light historic components. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	Historic mapping
Field Site 4	Historic House-Farmstead/ Prehistoric Open Air Habitation	Yes	Site consists of a mixed historic house and prehistoric lithic scatter. The limits of the proposed ROW come within 2 m of a remnant foundation. Presently, a substantial dry laid stone chimney remains standing. The prehistoric component includes a moderately dense chipped stone artifact assemblage. This site is located along existing County Road 1317 and appears to be effected by the widening of the existing road. It may be possible to alter this area slightly to avoid the site. Additional Phase II investigations may be needed in this area if avoidance is not possible. The standing chimney was not included in the architectural survey. Management recommendation will be refined in Phase I technical report.	Historic mapping, additional archival research
Field Site 5	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None

<sup>1</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Management recommendations are tailored for portions of the site identified within proposed right-of-way (ROW).

**Table 14**  
**Management Recommendations and Preliminary NRHP Evaluations for Archaeological Sites<sup>2</sup>**  
**Somerset Northern Bypass**

AMEC Field Site No.	Site Type	Additional Archaeology Recommended <sup>2</sup>	Management Recommendations and Preliminary NRHP Evaluations	Archival Research Required
Field Site 6	Prehistoric Open Air Habitation/Historic House-Farmstead	No?	Site consists of a low density prehistoric lithic scatter and a portion of a historic structure. The foundation remnant bears the name of the builder and presumed construction date of 1937. Initial analysis of the historic artifacts supports the 1937 construction date. The prehistoric component of the produced no evidence for a substantial prehistoric occupation. Further archival research and artifact analysis of the historic component is needed to determine NRHP eligibility.	Historic mapping, additional archival research
Field Site 7	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. A complete PP/K was included in the small artifact assemblage recovered from this site. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 8	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 9	Prehistoric Open Air Habitation	Yes?	The site consists of a surface scatter of lithic debris and two positive shovel probes. One shovel probe contained 20+ lithic flakes and a stain in the profile that indicates the presence of a feature. Due to the constraints of the project limits it was not possible to determine whether or not Field Site 9 was part of Field Site 10. The presence of a prehistoric feature and the artifact density may necessitate avoidance or Phase II investigation. Management recommendations will be refined in Phase I report.	None
Field Site 10	Historic House-Farmstead/Prehistoric Open Air Habitation	Yes	The remnants of a dry laid double chimney cabin with a dry laid stone cellar under half of the house are located at this site. Preliminary analysis of the historic material recovered from this site indicates a 19 <sup>th</sup> century through 20 <sup>th</sup> century occupation of the cabin. Shovel probes around the cabin contained dark midden deposits up to 50+ cm below the ground surface. In addition, prehistoric material was also found at this site. One shovel probe yielded in excess of 40 lithic flakes. Field Site 10 is considered eligible for NRHP. If avoidance is not possible, additional archaeology is recommended.	Historic mapping, additional archival research
Field Site 11	Prehistoric Open Air Habitation	No	Portion of site within ROW consists of a low density prehistoric lithic scatter with no evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None

<sup>2</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Management recommendations are tailored for portions of the site identified within proposed right-of-way (ROW).

**Table 14**  
**Management Recommendations and Preliminary NRHP Evaluations for Archaeological Sites<sup>3</sup>**  
**Somerset Northern Bypass**

AMEC Field Site No.	Site Type	Additional Archaeology Recommended <sup>2</sup>	Management Recommendations and Preliminary NRHP Evaluations	Archival Research Required
Field Site 12	Prehistoric Open Air Habitation	No	Site consists of a low density prehistoric lithic scatter and light historic components. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 13	Prehistoric Open Air Habitation	Yes	Site consisted of a moderately dense prehistoric lithic scatter. Portions of the site appear to contain sub-plowzone intact deposits. A variety of chipped stone debitage as well as a ground stone ax was collected. Evidence of a possible feature was observed. This site may be eligible for inclusion on the NRHP. Additional Phase II investigation is recommended.	None
Field Site 14	Prehistoric Open Air Habitation	Yes	Site consists of a moderately dense prehistoric lithic scatter with up to 30+ flakes from a single shovel probe. The archaeological material appears to be confined to the plowzone, but further investigations may be warranted based on the artifact density. This site may be considered eligible for inclusion on the NRHP. Additional archaeology or avoidance may be recommended.	None
Field Site 15	Prehistoric Open Air Habitation	No	Site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 16	Prehistoric Open Air Habitation	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 17	Prehistoric Open Air Habitation	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 18	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 19	Historic House-Farmstead	No	The site consists of a low density scatter of historic artifacts that suggests the presence of a historic house/outbuilding. Few artifacts were recovered and no indication of intact deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None

<sup>3</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Management recommendations are tailored for portions of the site identified within proposed right-of-way (ROW).

**Table 14**  
**Management Recommendations and Preliminary NRHP Evaluations for Archaeological Sites<sup>4</sup>**  
**Somerset Northern Bypass**

AMEC Field Site No.	Site Type	Additional Archaeology Recommended <sup>2</sup>	Management Recommendations and Preliminary NRHP Evaluations	Archival Research Required
Field Site 20	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	Historic mapping
Field Site 21	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 22	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 23	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 24	Historic House-Farmstead	No	The site consists of a low density scatter of historic artifacts that suggests the presence of a historic house/outbuilding. Few artifacts were recovered and no indication of intact deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	Historic mapping
Field Site 25	Prehistoric Open Air Habitation/Historic House-Farmstead	No	The site consists of a low density prehistoric lithic scatter and light historic components. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	Historic mapping
Field Site 26	Prehistoric Open Air Habitation/Historic House-Farmstead	No	The site consists of a low density prehistoric lithic scatter and light historic components. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 27	Historic house - Farmstead	No	The site consists of a low density scatter of historic artifacts that suggests the presence of a historic house/outbuilding. Few artifacts were recovered and no indication of intact deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	Historic mapping

<sup>4</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Management recommendations are tailored for portions of the site identified within proposed right-of-way (ROW).

**Table 14**  
**Management Recommendations and Preliminary NRHP Evaluations for Archaeological Sites<sup>5</sup>**  
**Somerset Northern Bypass**

AMEC Field Site No.	Site Type	Additional Archaeology Recommended <sup>2</sup>	Management Recommendations and Preliminary NRHP Evaluations	Archival Research Required
Field Site 28	Prehistoric Open Air Habitation	No	Portion of site within ROW and study buffer consisted of light prehistoric lithic scatter with little evidence for a substantial prehistoric occupation in the flood plain of Pitman Creek. Inspection of STP profiles and cut bank profiles along the creek in coordination with the County Soil Survey revealed that there is little or no likelihood that buried archaeological deposits are present in this area. This site is not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 29	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 30	Prehistoric Open Air Habitation	Yes	This site is located at the head of Sulphur Spring Hollow. The site area includes areas of moderate artifact concentration with a diverse assemblage of chipped stone artifacts. This site is considered potentially eligible for inclusion on the NRHP. Additional Phase II investigation or avoidance may be necessary. Management recommendations will be refined in Phase I technical report.	None
Field Site 31	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 32	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter located in a dissected upland setting. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None
Field Site 33	N/A	N/A	This site was combined with field site 32.	N/A
Field Site 34	Prehistoric Open Air Habitation	No	The site consists of a low density prehistoric lithic scatter located in a dissected upland setting. The archaeological material is confined to the plowzone and no evidence for intact cultural deposits was observed. This site is not considered eligible for inclusion on the NRHP. No additional archaeological investigation recommended.	None

<sup>5</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Management recommendations are tailored for portions of the site identified within proposed right-of-way (ROW).

**Table 14**  
**Management Recommendations and Preliminary NRHP Evaluations for Archaeological Sites<sup>6</sup>**  
**Somerset Northern Bypass**

AMEC Field Site No.	Site Type	Additional Archaeology Recommended <sup>2</sup>	Management Recommendations and Preliminary NRHP Evaluations	Archival Research Required
Field Site 35	Prehistoric Open Air Habitation	No	Portion of site within ROW and study buffer consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 36	Prehistoric Open Air Habitation	No	Portion of site within ROW and study buffer consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 37	Prehistoric Open Air Habitation	No	Portion of site within ROW and study buffer consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 38	Prehistoric Open Air Habitation	No	Portion of site within ROW and study buffer consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 39	Prehistoric Open Air Habitation	No	Portion of site within ROW and study buffer consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 40	Prehistoric Open Air Habitation	No	Portion of site within ROW and study buffer consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 41	Prehistoric Open Air Habitation	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 42	Prehistoric Open Air Habitation	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 43	Prehistoric Open Air Habitation	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 44	Prehistoric Open Air Habitation/Historic House-Farmstead	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. In addition, a light scatter of historic artifacts was also recovered from plowzone deposits. Neither component of the site is considered eligible for NRHP. No additional archaeological investigation recommended.	Historic mapping

<sup>6</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Management recommendations are tailored for portions of the site identified within proposed right-of-way (ROW).

**Table 14**  
**Management Recommendations and Preliminary NRHP Evaluations for Archaeological Sites<sup>7</sup>**  
**Somerset Northern Bypass**

AMEC Field Site No.	Site Type	Additional Archaeology Recommended <sup>2</sup>	Management Recommendations and Preliminary NRHP Evaluations	Archival Research Required
Field Site 45	Prehistoric Open Air Habitation	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 46	Prehistoric Open Air Habitation	Yes	Site consists of a dense and diverse prehistoric lithic assemblage with some FCR. One shovel probe yielded 100+ flakes. Cultural features associated with artifact assemblage may be present below plowzone. Phase II investigations or avoidance is recommended. Management recommendations will be refined in Phase I technical report.	None
Field Site 47	Prehistoric Open Air Habitation	No	Portion of site within ROW consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. Not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 48	Prehistoric Open Air Habitation	No	Portion of site within the high probability area consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. This site is not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Field Site 49	Prehistoric Open Air Habitation	No	Portion of site within the high probability area consisted of low density prehistoric lithic scatter with little evidence for a substantial prehistoric occupation. This site is not considered eligible for NRHP. No additional archaeological investigation recommended.	None
Sweeney Cemetery	Historic Cemetery	Yes	Initial mapping provided for the project indicated that approximately 3 marked graves would be affected by the proposed project as well as a portion of the cemetery that likely contains several unmarked graves. Cathi Blair (KYTC District 8 Environmental Coordinator) indicated that the alignment had been altered so that the fenced boundaries of the cemetery would not be impacted. The likelihood of encountering unmarked graves within the revised alignment appears minimal, but mechanical scraping along the construction boundary closest to the cemetery would confirm that no burials are present. The additional investigation would only require one additional day of fieldwork.	Additional archival research

<sup>7</sup> All management recommendations and National Register of Historic Places (NRHP) evaluations are preliminary and will be further refined in the technical report of investigations following completion of artifact analysis, archival investigations, and a thorough review of site documentation.

<sup>2</sup> Management recommendations are tailored for portions of the site identified within proposed right-of-way (ROW).

**Table 15**  
**Earnings by Industry – Pulaski County 1999**  
**Somerset Northern Bypass**

<b><u>Industry</u></b>	<b><u>Earnings</u> <u>(\$000)</u></b>
<u>Farm Earnings:</u>	1,558
<u>Non-Farm Earnings:</u>	
Agric. Services, Forestry, Fishing:	3,266
Mining:	4,886
Construction:	43,952
Manufacturing:	139,527
Transportation & Public Utilities:	61,963
Wholesale Trade:	42,309
Retail Trade:	92,727
Finance, Insurance & Real Estate:	27,752
Services:	163,039
Government:	118,208

Information obtained from the U.S. Bureau of Economic Analysis.



**Table 16**  
**Pulaski County Tax Revenue Loss – Crossover Alternate**  
**Somerset Northern Bypass**

<u><b>Taxing Unit</b></u>	<u><b>Additional Right-of-Way Acres <sup>1</sup></b></u>	<u><b>Equalized Assessed Valuation Of Land <sup>2</sup></b></u>	<u><b>Market Value Of Structures <sup>3</sup></b></u>	<u><b>Tax Rate for 2001</b></u>	<u><b>Revenue Loss In 2001 Dollars <sup>4</sup></b></u>	<u><b>2001 Total Assessed Taxes <sup>5</sup></b></u>	<u><b>Tax Loss Percent <sup>6</sup></b></u>
<b>Pulaski County:</b>							
Extension Services	515	\$154,500	\$9,340,000	.00012	\$392	\$11,980,648	0.003
General	515	\$154,500	\$9,340,000	.00056	\$1,830	\$11,980,648	0.015
Health	515	\$154,500	\$9,340,000	.00020	\$654	\$11,980,648	0.005
Library	515	\$154,500	\$9,340,000	.00028	\$915	\$11,980,648	0.008
<b>Subtotal (Pulaski County)</b>	<b>515</b>	<b>\$154,500</b>	<b>\$9,340,000</b>	<b>.00116</b>	<b>\$3,791</b>	<b>\$11,980,648</b>	<b>0.032</b>
Pulaski County School District	515	\$154,500	\$9,340,000	.00381	\$12,450	\$11,980,648	0.104
State	515	\$154,500	\$9,340,000	.00136	\$4,444	\$11,980,648	0.037
<b>Total</b>	<b>515</b>	<b>\$154,500</b>	<b>\$9,340,000</b>	<b>.00633</b>	<b>\$20,685</b>	<b>\$11,980,648</b>	<b>0.173</b>

Notes:

<sup>1</sup>Net right-of-way required for construction.

<sup>2</sup>EAV = (Additional ROW) X (\$300/acre for Pulaski County).

<sup>3</sup>Structures within ROW to be acquired: \$55,000 per residence, \$100,000 per commercial building, \$25,000 per farm building.

<sup>4</sup>{EAV + (Market Value / 3)} X (Tax Rate for 2001).

<sup>5</sup>Total assessed property tax for 2001.

<sup>6</sup>Percent of revenue lost from highway construction.

Information obtained from the Office of Property Evaluation, Pulaski County, Somerset, Kentucky, 2002.

**Table 17**  
**Pulaski County Tax Revenue Loss – South Alternate**  
**Somerset Northern Bypass**

<u>Taxing Unit</u>	<u>Additional Right-of-Way Acres</u> <sup>1</sup>	<u>Equalized Assessed Valuation Of Land</u> <sup>2</sup>	<u>Market Value of Structures</u> <sup>3</sup>	<u>Tax Rate for 2001</u>	<u>Revenue Loss In 2001 Dollars</u> <sup>4</sup>	<u>2001 Total Assessed Taxes</u> <sup>5</sup>	<u>Tax Loss Percent</u> <sup>6</sup>
<b>Pulaski County:</b>							
Extension Services	530	\$159,000	\$6,360,000	.00012	\$273	\$11,980,648	0.002
General	530	\$159,000	\$6,360,000	.00056	\$1,276	\$11,980,648	0.011
Health	530	\$159,000	\$6,360,000	.00020	\$456	\$11,980,648	0.004
Library	530	\$159,000	\$6,360,000	.00028	\$638	\$11,980,648	0.005
<b>Subtotal (Pulaski County)</b>	<b>530</b>	<b>\$159,000</b>	<b>\$6,360,000</b>	<b>.00116</b>	<b>\$2,644</b>	<b>\$11,980,648</b>	<b>0.022</b>
Pulaski County School District	530	\$159,000	\$6,360,000	.00381	\$8,683	\$11,980,648	0.072
State	530	\$159,000	\$6,360,000	.00136	\$3,099	\$11,980,648	0.026
<b>Total</b>	<b>530</b>	<b>\$159,000</b>	<b>\$6,360,000</b>	<b>.00633</b>	<b>\$14,426</b>	<b>\$11,980,648</b>	<b>0.120</b>

Notes:

<sup>1</sup>Net right-of-way required for construction.

<sup>2</sup>EAV = (Additional ROW) X (\$300/acre for Pulaski County).

<sup>3</sup>Structures within ROW to be acquired: \$55,000 per residence, \$100,000 per commercial building, \$25,000 per farm building.

<sup>4</sup>{EAV + (Market Value / 3)} X (Tax Rate for 2001).

<sup>5</sup>Total assessed property tax for 2001.

<sup>6</sup>Percent of revenue lost from highway construction.

Information obtained from the Office of Property Evaluation, Pulaski County, Somerset, Kentucky, 2002.

**Table 18**  
**Pulaski County Tax Revenue Loss – North Alternate**  
**Somerset Northern Bypass**

<u><b>Taxing Unit</b></u>	<u><b>Additional Right-of-Way Acres <sup>1</sup></b></u>	<u><b>Equalized Assessed Valuation Of Land <sup>2</sup></b></u>	<u><b>Market Value of Structures <sup>3</sup></b></u>	<u><b>Tax Rate for 2001</b></u>	<u><b>Revenue Loss In 2001 Dollars <sup>4</sup></b></u>	<u><b>2001 Total Assessed Taxes <sup>5</sup></b></u>	<u><b>Tax Loss Percent <sup>6</sup></b></u>
<b>Pulaski County:</b>							
Extension Services	572	\$171,600	\$6,105,000	.00012	\$265	\$11,980,648	0.002
General	572	\$171,600	\$6,105,000	.00056	\$1236	\$11,980,648	0.010
Health	572	\$171,600	\$6,105,000	.00020	\$441	\$11,980,648	0.004
Library	572	\$171,600	\$6,105,000	.00028	\$618	\$11,980,648	0.005
<b>Subtotal (Pulaski County)</b>	<b>572</b>	<b>\$171,600</b>	<b>\$6,105,000</b>	<b>.00116</b>	<b>\$2,560</b>	<b>\$11,980,648</b>	<b>0.021</b>
Pulaski County School District	572	\$171,600	\$6,105,000	.00381	\$8,407	\$11,980,648	0.070
State	572	\$171,600	\$6,105,000	.00136	\$3,001	\$11,980,648	0.025
<b>Total</b>	<b>572</b>	<b>\$171,600</b>	<b>\$6,105,000</b>	<b>.00633</b>	<b>\$13,968</b>	<b>\$11,980,648</b>	<b>0.117</b>

Notes:

<sup>1</sup>Net right-of-way required for construction.

<sup>2</sup>EAV = (Additional ROW) X (\$300/acre for Pulaski County).

<sup>3</sup>Structures within ROW to be acquired: \$55,000 per residence, \$100,000 per commercial building, \$25,000 per farm building.

<sup>4</sup>{EAV + (Market Value / 3)} X (Tax Rate for 2001).

<sup>5</sup>Total assessed property tax for 2001.

<sup>6</sup>Percent of revenue lost from highway construction.

Information obtained from the Office of Property Evaluation, Pulaski County, Somerset, Kentucky, 2002.

**Table 19**  
**Pulaski County Housing Data – 2000 Census**  
**Somerset Northern Bypass**

	Total	Percent		Total	Percent
<b>Householder Age:</b>			<b>Utilities:</b>		
Under 25	1,116	4.9	Heating Fuel:		
25 to 34	3,565	15.7	Natural Gas	3,488	15.4
35 to 44	4,527	19.9	Liquid Propane	1,481	6.5
45 to 54	4,370	19.2	Electricity	14,008	61.7
55 to 64	3,546	15.6	Oil	2,101	9.2
65 and over	5,595	24.6	Coal	208	0.9
Total	22,719	100.0	Wood	1,264	5.6
			Solar Energy	0	0.0
<b>Housing Units:</b>			None	92	0.4
Occupied:	22,719	83.6	Other	77	0.3
Owner	17,264	63.5	Total	22,719	100.0
Renter	5,455	20.1			
Vacant:	4,462	16.4	Telephone:		
Year round	2,370	8.7	With	21,447	94.4
Seasonal	2,092	7.7	Without	1,272	5.6
Total	27,181	100.0	Total	22,719	100.0
<b>Units in Structure:</b>			<b>Home Value:</b>		
1, Detached	17,203	63.3	Under \$50,000	2,453	22.8
Attached:			\$50,000 to \$99,999	5,723	53.2
1	419	1.5	\$100,000 to \$149,999	1,672	15.5
2	754	2.8	\$150,000 to \$199,999	515	4.8
3 to 4	1,135	4.2	\$200,000 to \$299,999	284	2.6
5 to 9	676	2.5	\$300,000 or more	117	1.1
10 to 19	310	1.1	Total	10,764	100.0
20 to 49	273	1.0			
Mobile Home	6,284	23.1	Median Home Value	\$74,100	
Other	127	0.5			
Total	27,181	100.0	<b>Rent:</b>		
<b>Year Structure Built:</b>			Under \$200	741	16.7
Before 1940	2,584	9.5	\$200 to \$299	742	16.8
1940 to 1959	3,923	14.4	\$300 to \$499	2,182	49.3
1960 to 1969	2,787	10.3	\$500 to \$749	633	14.3
1970 to 1979	6,233	22.9	\$750 or more	127	2.9
1980 to 1989	4,431	16.3	Total	4,425	100.0
1990 to 1994	2,951	10.9	Median Rent	\$360	
1995 to 2000 (Mar)	4,272	15.7			
Total	27,181	100.0			

Information obtained from U.S. Census Bureau's 2000 Census.

**Table 20**  
**Pulaski County Housing Data – 1990 Census**  
**Somerset Northern Bypass**

	Total	Percent		Total	Percent
<b>Householder Age:</b>			<b>Utilities:</b>		
Under 25	955	5.1	Heating Fuel:		
25 to 34	3,471	18.4	Natural Gas	2,956	15.7
35 to 44	3,765	20.0	Liquid Propane	1,271	6.7
45 to 54	3,061	16.2	Electricity	8,250	43.7
55 to 64	2,931	15.5	Oil	2,664	14.1
65 and over	4,683	24.8	Coal	624	3.3
Total	18,866	100.0	Wood	3,076	16.3
			Solar Energy	6	0.0
<b>Housing Units:</b>			None	5	0.0
Occupied:	18,866	84.5	Other	14	0.1
Owner	14,283	64.0	Total	18,866	100.0
Renter	4,583	20.5			
Vacant:	3,462	15.5	Telephone:		
Year round	1,722	7.7	With	16,420	87.0
Seasonal	1,740	7.8	Without	2,446	13.0
Total	22,328	100.0	Total	18,866	100.0
<b>Units in Structure:</b>			<b>Home Value:</b>		
1, Detached	14,893	66.7	Under \$20,000	1,188	14.2
Attached:			\$20,000 to \$39,999	2,315	27.7
1	199	0.9	\$40,000 to \$59,999	2,427	29.0
2	462	2.1	\$60,000 to \$79,999	1,406	16.8
3 to 4	1,015	4.5	\$80,000 to \$99,999	478	5.7
5 to 9	533	2.4	\$100,000 to \$149,999	389	4.7
10 to 19	193	0.9	\$150,000 to \$199,999	92	1.1
20 to 49	105	0.5	\$200,000 to \$249,999	28	0.3
Mobile Home	4,677	20.9	\$250,000 to \$299,999	24	0.3
Other	251	1.1	\$300,000 or more	13	0.2
Total	22,328	100.0	Total	8,360	100.0
<b>Year Structure Built:</b>			Median Home Value	\$44,600	
Before 1940	2,856	12.8			
1940 to 1949	1,641	7.3	<b>Rent:</b>		
1950 to 1959	2,490	11.2	Under \$100	493	13.9
1960 to 1969	3,119	14.0	\$100 to \$199	1,440	40.5
1970 to 1979	6,834	30.6	\$200 to \$299	1,148	32.3
1980 to 1984	2,258	10.1	\$300 to \$399	374	10.5
1985 to 1990 (Mar)	3,130	14.0	\$400 to \$499	74	2.1
Total	22,328	100.0	\$500 to \$599	12	0.3
			\$600 to \$699	6	0.2
			\$700 or more	6	0.2
			Total	3,553	100.0
			Median Rent	\$190	

Information obtained from U.S. Census Bureau's 1990 Census.

**Table 21**  
**Number of Houses Displaced and Estimated Available Housing**  
**Somerset Northern Bypass**

<b>Market Value Range</b>	<b><u>North Alternate</u></b>	<b><u>Crossover Alternate</u></b>	<b><u>South Alternate</u></b>	<b><u>Estimated Available Housing</u></b>
\$10,000 to \$19,999	5	6	3	5
\$20,000 to \$29,999	7	10	3	19
\$30,000 to \$39,999	3	8	3	30
\$40,000 to \$49,999	6	12	2	30
\$50,000 to \$59,999	9	8	4	38
\$60,000 to \$69,999	10	16	12	38
\$70,000 to \$79,999	11	16	16	27
\$80,000 to \$89,999	6	7	5	37
\$90,000 to \$99,999	3	6	5	35
\$100,000 to \$109,999	1	3	2	17
\$110,000 to \$119,999	0	1	2	25
\$120,000 to \$129,999	0	1	1	21
\$130,000 to \$139,999	0	2	2	19
\$160,000 to \$169,999	1	2	1	7
\$180,000 to \$189,999	1	2	0	2
\$200,000 to \$209,999	1	1	1	2
\$240,000 to \$249,999	0	1	0	1
\$260,000 to \$269,999	0	1	1	2
\$650,000 to \$659,999	0	1	1	0
<b>Total</b>	<b>64</b>	<b>104</b>	<b>64</b>	<b>355</b>

Information obtained from the Office of Property Evaluation, Pulaski County, Somerset, Kentucky, 2002.

**Table 22**  
**Businesses Displaced by Build Alternates**  
**Somerset Northern Bypass**

<b><u>Company Name</u></b>	<b><u>Property Market Value</u></b>	<b><u>North Alternate</u></b>	<b><u>Crossover Alternate</u></b>	<b><u>South Alternate</u></b>
Warner Fertilizer	\$500,000			1
B&R Auto Sales / Chevron Quik Stop / Compton's Detailing & Auto Sales / Hall Electric / Lisa's Beauty Salon	\$187,500	5		
BP Gas Station / Nelson Valley Grocery	\$150,000		2	2
B&B Leasing Valley Warehouse & Storage	\$119,200	2		
Woodall Cabinets	\$95,000	1		
BJD Auto Repair	\$85,000		1	
The Body Shop	\$67,000		1	1
Danny's British Services	\$65,000		1	
Whitaker's Refrigeration	\$20,000		1	1

Information obtained from the Office of Property Evaluation, Pulaski County, Somerset, Kentucky, 2002.

**Table 23**  
**Displaced Dwelling Units**  
**Somerset Northern Bypass**

	North Alternate	Crossover Alternate	South Alternate
<b><u>Somerset</u></b>	<b><u>Units</u></b>	<b><u>Units</u></b>	<b><u>Units</u></b>
Single Family	66	109	64
Multi Family	0	0	0
Mobile	10	9	8
<b>Total</b>	<b>76</b>	<b>118</b>	<b>72</b>

*Based on proposed right-of-way plans, JDQ Engineers, Inc. 2002,*



**Table 24**  
**Minority and Low-Income Populations – 2000 Census**  
**Somerset Northern Bypass**

<b><u>Location</u></b>	<b><u>Total Population</u></b>	<b>Minority Population <u>Total</u></b>	<b>Minority Population <u>Percent</u></b>	<b>Low-Income Population <u>Percent</u></b>
Somerset	11,352	629	5.5%	22.1%
Pulaski County	56,217	1,398	2.5%	19.1%
Kentucky	4,041,769	395,753	9.8%	15.8%

Information obtained from U.S. Census Bureau's 2000 Census.

**Table 25**  
**UST/Hazardous Materials Sites**  
**Somerset Northern Bypass**

Site Information			Degree of Hazard		Alternate(s) Affected
Site Description	Site Name	Type of Hazard	Substantial (Full Phase II)	Small (Limited Phase II)	
Site 1: Body shop	Body Shop	Diesel, oil, or other materials related to trucks		X	South
Site 2: Used auto sales	S & S Auto Sales	Gasoline, oil, diesel, or other materials related to automobiles		X	Crossover
Site 3: Auto salvage yard and used car sales	Somerset Wrecking & Used Auto Sales	Gasoline, oil, diesel, or other materials related to automobiles	X		North Crossover
Site 4: Fertilizer manufacturer	Warner Fertilizer	Pesticides and oil, diesel, solvents, and other materials related to trucks	X		South
Site 5: Railroad line	Southern Railroad Tracks	Contamination from spills or leaks		X	North South Crossover
Site 6: Paint shop and used car sales	Comptons Detailing & Auto Sales	Paint, gasoline, oil, diesel, or other materials related to automobiles		X	North
Site 7: Gasoline station	Chevron Quickstop	Petroleum and diesel and USTs	X		North
Site 8: Former gas station	Oak Shop	Contamination from petroleum from USTs	X		Crossover

**Table 25**  
**UST/Hazardous Materials Sites**  
**Somerset Northern Bypass**

Site Information			Degree of Hazard		Alternate(s) Affected
Site Description	Site Name	Type of Hazard	Substantial (Full Phase II)	Small (Limited Phase II)	
Site 9: Auto repair shop	BJD Auto Repair	Gasoline, oil, diesel, or other materials related to automobiles		X	Crossover
Site 10: Auto repair shop	Danny's British Services (closed)	Gasoline, oil, diesel, or other materials related to automobiles		X	Crossover
Site 11: Gas Station	BP Gas Station	Contamination from petroleum from USTs	X		Crossover South
Site 12: Refrigeration business	Whitakers Refrigeration Business	Hazardous materials from refrigeration equipment and diesel, oil, and other materials related to truck repair		X	Crossover South
Site 13: Sludge farm	Sludge Farm	Heavy metals from sewage sludge land application		X	North

Information taken from THE Engineers Inc. *Hazardous Materials and Underground Storage Tanks Baseline Study*.  
[See Section 6, Reference23]